

Chapter 11

Taking Actions: Regulatory and Non-Regulatory Activities

11.1 Introduction

This chapter discusses Step 3 of the four-step framework, taking actions to reduce risks to the wetland resource (Figure 11-1). In Step 3, the regulatory and non-regulatory solutions, developed for a wetland protection program during Step 2, are implemented. The solutions are described in Chapters 6, 7, 8 and 9, whereas characterizing the risks of implementing those solutions is discussed in Chapter 10.

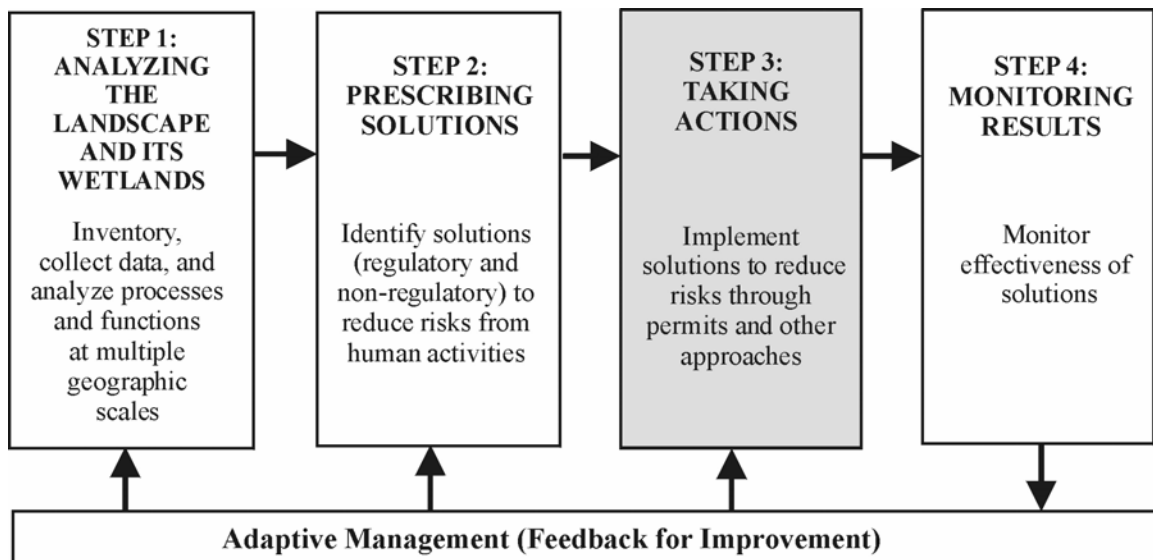


Figure 11-1. Implementing regulatory and non-regulatory components of a wetland protection program is Step 3 in the four-step framework presented in this volume (shaded box).

The chapter is divided into two major sections: implementing the regulatory and the non-regulatory components of a wetland protection program. As mentioned previously, both are needed to effectively protect and manage wetlands.

11.2 Implementing the Regulatory Component of a Protection Program

The single most important element in ensuring effective implementation of the regulatory component is having adequately trained staff or a qualified professional on contract. Other important elements include:

- A process to review permits that is clear and uses a team approach
- Inspecting the wetland site during construction of the development project
- Monitoring the wetland during and following construction
- Enforcing regulations
- Monitoring the effectiveness of regulations

The elements listed above require adequate funding for effective implementation. Local governments should include provisions, such as fees for permit review, for adequate funding of all the elements. It is also important to have an educational element such as materials for permit applicants and interested citizens.

11.2.1 Adequately Trained Staff or Qualified Wetland Professional

Local governments benefit greatly from having trained staff or access to qualified wetland professionals to implement their regulations, to make decisions where discretion is required, and to work with and review the materials submitted by the applicant's consultants. Most regulations pertaining to wetlands allow for some discretion in application to site-specific situations. They may pertain to site-specific buffer adjustments, stormwater considerations, or mitigation ratios. Even when regulations are written in a prescriptive fashion, many applicants and/or their consultants may make a case for why their projects should be granted some flexibility based on site-specific considerations over and above that allowed by the regulations.

In many instances, an applicant's consultant may be an individual with extensive experience and credentials in wetland science and it can be difficult for a local regulator to respond in a reasonable and appropriate manner to such requests. Additionally, while most applicants and their consultants provide accurate and complete information, occasionally a regulator will be confronted with information that is inaccurate or incomplete. It is critical that the local staff responsible for implementing wetland regulations have the knowledge or resources to effectively review submitted information and determine if it is accurate and complete.

Therefore, to effectively implement regulations, local government staff or wetland professionals on contract should have at least a basic familiarity with the following topics:

- Wetland identification and delineation
- Wetland rating
- Wetland function assessment
- Direct and indirect impacts to wetlands from different types of development projects
- Compensatory wetland mitigation, including site selection and design, construction oversight, monitoring, and maintenance
- Land-use regulations
- Writing permits and applying necessary conditions

The following resources can be used when becoming familiar with the basics of wetland regulation: Ecology's publications on wetland programs (www.ecy.wa.gov/programs/sea/wetlan.html); periodic training offered by Ecology and other resource agencies; training classes provided by private vendors; and coursework such as the University of Washington's Certificate Program in Wetland Science and Management (www.extension.washington.edu/ext/certificates/wet/wet_gen.asp). Portland State University also offers various courses in wetland science and management through its Environmental Professional Development Program (www.esr.pdx.edu/epp/).

Some larger jurisdictions have one or more wetland professionals on staff. Most jurisdictions, however, rely on planning and general regulatory staff that have many responsibilities and who may not have the expertise in wetland ecology and management in order to effectively administer wetland regulations. To address this situation, many jurisdictions contract with a third-party wetland professional to provide the knowledge and experience needed to review proposals for changes in land uses such as development proposals. Considerations for choosing a qualified third-party wetland professional are discussed in Appendix 8-H, Hiring a Qualified Wetlands Professional.

11.2.2 The Process for Reviewing Permits

The process for review of permit applications for land development should be clear to both the applicant and the regulator. A local jurisdiction can require a separate permit for work in or near wetlands, or they can incorporate review for conformance with their wetland regulations into other permit review processes (see Appendix 8-B, the section on applicability). Regardless, the process for reviewing permit applications should include close coordination among appropriate regulatory staff, especially between those responsible for wetland protection, stormwater management, clearing and grading, and construction inspection.

Review of permit applications involving wetlands should at a minimum include a site investigation to verify delineation of the wetland boundary and confirmation of the rating of the wetland. Review for more complex projects that will alter wetlands should include assessment of wetland functions, analysis of project impacts, and review of proposed mitigation to compensate for adverse impacts. Some projects may require additional hydrologic analysis to ensure that wetland hydrology is not adversely affected. In such situations a hydrologist with understanding of wetland functions should become part of the review team to ensure that the project's stormwater management plan takes the wetland's hydrology into account.

Review of permit applications involving wetlands should result in written recommendations for approval, denial, or conditioning of the permit. Regulatory staff and/or qualified, third-party wetland professionals may be required to testify before the local Hearings Examiner to support decisions made during the review of the permit for certain types of applications.

11.2.3 Inspecting and Monitoring the Wetland During Construction

It is important that the conditions or wetland protection measures applied to permits upon their approval are in place and on the ground during and after construction of the project. For example, inspections during construction should ensure that clearing of vegetation is outside the wetland buffer or otherwise consistent with the approved plans and that measures for erosion and sediment control are protecting the wetland's water quality. Erosion and sediment controls should be in place and clearing limits well marked and easily visible on the ground.

When compensatory wetland mitigation is required for a permit, it is essential that the local jurisdiction inspect the mitigation project to see that it has been installed in accordance with the approved plans. Inspections at mitigation sites should take place annually or as specified on the approved mitigation plan to ensure that the project will be successful in compensating for the lost wetland functions.

11.2.4 Enforcing Regulations

Unfortunately, at times wetlands are altered without approval through a permit. A local jurisdiction should have specific authority in their critical areas ordinance to investigate the affected wetland, issue "stop work" orders (see Appendix 8-B), and require remediation of any violation. This includes the ability to require restoration of affected wetlands and/or compensatory mitigation for the reduction or loss of wetland functions. Effective enforcement often requires penalties for the unauthorized alteration of wetlands. These enforcement activities require adequate staff to investigate the initial violation, follow up on remediation, and coordinate with state and federal agencies as appropriate.

11.2.5 Monitoring the Effectiveness of Regulations

Local jurisdictions should create a tracking system to monitor the effectiveness of regulations in protecting wetlands. At a minimum, the jurisdiction should account for the acreage of wetlands altered as a result of permit activity and the success of compensatory mitigation projects. Evaluation of the results of the tracking system can be used by a local jurisdiction to revise regulations or procedures to provide better protection for wetlands. Please refer to Chapter 8 (Section 8.4) and Chapter 12 for additional discussion on monitoring the effectiveness of a wetland protection program. The tracking system can also be used to keep track of unauthorized activities in the jurisdiction.

11.2.6 Educational Materials

Many landowners and project applicants find it difficult to understand regulations and the requirements for permit application. Additionally, some landowners do not understand why wetlands are important and why regulations are needed. Brochures and other informational materials that discuss these topics and explain how applicants can get assistance can be very helpful and save regulatory staff a lot of time. Providing a clear explanation of the process for reviewing permits, such as a flow chart, can also be important to applicants. While general materials on some of these topics are available from federal and state agencies, materials developed locally are very useful.

11.3 Implementing the Non-Regulatory Component of a Protection Program

As with the regulatory component of a wetland protection program, implementing non-regulatory actions specified in plans and policies such as Green Infrastructure plans, Alternative Futures analysis, or comprehensive plans (discussed in Chapters 6, 7, and 9) requires dedicated staff to coordinate and support conservation, preservation, and restoration activities and manage sites. Other important elements include:

- Identifying, mapping, and prioritizing where non-regulatory tools should be applied
- Creating partnerships with organizations, government agencies, and others to help sponsor local projects
- Identifying a recipient to hold and manage land
- Obtaining funding for local actions
- Providing incentives to encourage participation by landowners

- Educating and involving the public and providing technical outreach to landowners
- Monitoring project sites
- Monitoring the overall success of the non-regulatory actions

An overview of each of these elements is provided below.

For more information about setting up a non-regulatory component of a wetland protection program, see *Designing Wetland Preservation Programs for Local Governments: A Guide to Non-Regulatory Protection* (Rubey 1992). This document is somewhat dated but still offers a general discussion of some of the topic.

11.3.1 Staffing the Non-Regulatory Component

It is optimal to have a dedicated coordinator overseeing the non-regulatory component of a wetland protection program. A coordinator would facilitate the numerous actions (e.g., restoration or preservation of high-priority areas that can be sponsored through the local government or through partnerships with other organizations. A coordinator would also work with private landowners to conserve the land through mechanisms such as conservation easements (see Chapter 9 for a description of non-regulatory tools). The following is a list of tasks a coordinator might oversee:

- Identifying appropriate sites for preservation and restoration
- Working with landowners to apply better conservation practices
- Establishing and updating incentive and funding mechanisms
- Engaging in education and outreach activities
- Providing technical assistance for non-regulatory actions
- Facilitating local projects sponsored by the local jurisdiction (obtaining grants, forming partnerships, developing the technical design, conducting site monitoring, etc.)
- Supervising support staff or volunteers working on non-regulatory actions
- Coordinating with other departments within the jurisdiction and with other organizations and agencies

The coordinator may perform all or some of these tasks depending on the number of staff available as support. The number of staff dedicated to implement the non-regulatory component of a protection program usually reflects the size of the local government and its emphasis on incorporating a non-regulatory approach.

11.3.2 Identifying, Mapping, and Prioritizing Sites

Identifying, mapping, and prioritizing sites for non-regulatory activities are best started during early planning stages such as landscape analysis, Green Infrastructure planning, or Alternative Futures analysis (see Chapters 5 and 6 for further discussion). If these plans have not been completed by the local jurisdiction, then non-regulatory actions such as acquisition and restoration could occur as opportunities arise. In addition, a jurisdiction could decide on potential projects based on technical reports and studies that point to desirable sites. In either case, projects will usually need to be prioritized and implemented sequentially.

Additional review and strategizing will probably be needed as implementation of the non-regulatory program begins. This might involve sorting through the various sub-basins or sensitive landscape areas within the entire management area to focus on sites with immediate threats or opportunities and deciding what projects can be funded over the immediate fiscal period. Prioritizing will likely be conducted on an ongoing basis as funding, staff, and opportunities fluctuate.

11.3.3 Creating Partnerships for Locally Sponsored Projects

Local governments benefit from partnerships with other agencies or organizations to successfully implement non-regulatory projects. Completing transactions associated with conservation, preservation, and restoration (e.g., purchasing, restoring, monitoring, managing sites, etc.) can be complex and take time. The following organizations are available to work with local governments on non-regulatory actions.

Land trusts offer the services of brokering land acquisitions, raising funds to purchase sites, and educating landowners about tax benefits and incentives. Land trusts protect land permanently. They work directly with landowners during transactions to acquire land. Land trusts are knowledgeable about the resources and the advantages of land preservation in regard to property taxes. They are perceived as non-adversarial by landowners (see Appendix 9-A). In addition, land trusts often attract the voluntary assistance of retired professionals who can provide technical assistance with site assessments and monitoring.

For example, a national land trust called the Trust for Public Land (TPL) will assist in securing properties for governments when funding is pending and the time available to preserve a parcel is short. TPL releases the property to the jurisdiction later when funding is available.

Partnerships with other **non-profit organizations** such as the local Audubon Society or Ducks Unlimited may be essential to completing site monitoring tasks (such as bird counts on restored wetlands) and for implementing actual site restoration plans.

State and federal agencies are also excellent partners to assist with non-regulatory efforts. These agencies can help with securing grant funds for projects. They can also

offer technical knowledge about wetland functions, restoration techniques, and long-term management. Agency assistance is provided at no charge to the local jurisdiction.

Either **internal coordination** or **internal partnerships** will also be needed between various department and staff within the local government (such as parks or public works departments). As discussed below, they may be the recipients of lands that have been purchased and/or restored.

Information on land trusts and other partners, as well as funding program opportunities, can be found in the publication *Exploring Wetlands Stewardship: A Reference Guide for Assisting Washington Landowners and Communities* (Rubey 2004).

11.3.4 Identifying a Recipient to Hold and Manage Land or Rights to Land

A local department such as parks or public works should be identified to receive and manage properties that are purchased or donated. For example, direct preservation of key critical areas is essential to maintaining landscape processes through time. Therefore, preservation resulting in permanent protection of land through *full-fee title* (ownership of all property rights) may be the best mechanism to use (see Chapter 9 for a description of full-fee). In such cases, as with restoration efforts, a recipient is needed for managing and monitoring the site.

Who the recipient should be will depend on whether or not the local jurisdiction buys land in full-fee and wishes to own and manage the land over time. If not, site ownership and management (or holding a conservation easement) may be handled by an external partner such as a land trust. However, a land trust usually requires an endowment to manage a site. Alternatively, property could be passed to a state agency. However, state agencies may not be willing to accept management of new properties. Therefore, as mentioned above, it is important to identify willing organizations and create partnerships for receiving and managing land as well as coordinating other aspects of conservation, restoration, and preservation projects.

11.3.5 Establishing Funding Mechanisms and Incentives for Landowners

Funding mechanisms and landowner incentives were reviewed in Chapter 9. These tools play an essential role in the non-regulatory component of a protection program. Obtaining funding is an absolute necessity to a local government that wishes to conduct voluntary preservation and restoration projects. Without a local funding source to provide a match, a local government cannot apply for state and federal grant programs. As mentioned elsewhere in this volume, lists of funding programs are provided in *Exploring Wetlands Stewardship: A Reference Guide for Assisting Washington Landowners and Communities* (Rubey 2004).

One very strong funding tool that can be established by a local government is the Conservation Futures Levy. This levy can be implemented by legislative ordinance and a portion of the funds dedicated to preservation and restoration projects (see Chapter 9 for further details). It may also be appropriate for a local government to use the funds generated to finance “engineered infrastructure,” such as levies for *special purpose districts* and *in-lieu fees* as well as general funds, to implement non-regulatory actions (i.e., preservation and restoration) to maintain the services provided by “green infrastructure.”

Landowner incentives are also essential for engaging citizens in voluntary conservation actions and are discussed in detail in Chapter 9. In particular, local jurisdictions may wish to consider the value of establishing a watershed-based Public Benefit Rating System (PBRs) to implement their Current Use Taxation Program for “Natural” Open Space. As discussed in Chapter 9, the results of a landscape analysis can be integrated into a PBRs program.

11.3.6 Educating and Involving the Public

Education and public involvement are vital parts of a non-regulatory effort, both initially and on an ongoing basis. The importance of education and public involvement is demonstrated by its inclusion and emphasis in Green Infrastructure planning, Alternative Futures analysis, and the development of comprehensive plans (as discussed in Chapters 6 and 7).

Education is essential because it provides the public with an accurate understanding of why non-regulatory efforts are valuable to the community, as well as to maintaining and restoring landscape processes. For example, decision-makers and the public should be informed that the expenditures needed for conservation, restoration, and preservation are justified when compared to long-term costs. When landscape processes are maintained or improved, the public saves; engineered infrastructure that would be built to replace lost services (functions) is not needed (see Chapter 6 for information on the fiscal savings of non-regulatory efforts).

Education and outreach efforts are also key factors in increasing enrollment in incentive programs that foster conservation of the land. Likewise, they encourage the public to get involved through voluntary actions either on their own property or by supporting local projects (e.g., volunteers monitoring sites). In so doing, education and public involvement can also improve support for regulatory protection.

11.3.7 Monitoring Preservation and Restoration

When preserving and/or restoring wetlands, it is important that the local jurisdiction implement monitoring at both the site level and the program level.

At the site level, it is recommended that local governments:

- Allocate Conservation Futures dollars, or other funds, to secure properties and fund restoration activities
- Engage in restoration actions such as breaching dikes, removing exotic plants, planting native vegetation, etc.
- Monitor site conditions and manage preserved and restored lands

At the program level, it is recommended that local governments monitor the effectiveness of the success of the following elements to provide feedback for adaptive management:

- Goals for preservation and restoration that are aligned with the objectives of plans such as Green Infrastructure or conservation plans
- Incentive programs for landowners, such as current use taxation
- Education programs for citizens about local stewardship activities
- Technical assistance for landowners

Monitoring and adaptive management is discussed in more detail in Chapter 12.